

(a) identifying a first group of memory cells each having a stored charge over a first threshold;

(b) determining a subset of the first group of memory cells each having a stored charge less than a second threshold; and

(c) programming each memory cell of the subset of the first group of memory cells until each of the memory cells of the subset has a stored charge over the second threshold.

36. The method of claim 35 wherein the first threshold corresponds to an erased-cell reference level plus a guardband level.

Sub 31
37. A method of improving data retention in a nonvolatile writeable memory having an erased-cell reference level and a programmed-cell reference level, the nonvolatile writeable memory having a plurality of memory cells, each of the memory cells being in an erased state when storing a charge below the erased-cell reference level, and each of the memory cells being in a programmed state when storing a charge above the programmed-cell reference level, the method comprising the steps of:

(a) identifying a memory cell having a charge above the erased-cell reference level and below the programmed-cell reference level; and

(b) programming the memory cell until the charge of the memory cell is above the programmed-cell reference level.

38. A method of improving data retention in a nonvolatile writeable memory having an erased-cell reference level and a programmed-cell reference level, the nonvolatile writeable memory having a plurality of memory cells, each of the memory cells being in an erased state when storing a charge below the cells being in a programmed state when storing a charge above the programmed-cell reference level, the method comprising the steps of:

(a) reading first data from a group of the memory cells using a reference voltage level corresponding to the programmed-cell reference level;

(b) reading second data from the group of the memory cells using a reference voltage level corresponding to the erased-cell reference level plus a guardband level;

(c) comparing the first data from the step (a) to the second data from the step (b); and